

### **REMARKS/ARGUMENTS**

Applicant has received the Office Action dated April 20, 2009, in which the Examiner: 1) rejected claims 28-43 under 35 U.S.C. § 101, because the claimed invention is allegedly directed to non-statutory matter and because the claimed invention allegedly does not provide any tangible results; 2) rejected claims 1-12 and 28-43 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, as being allegedly indefinite; 3) rejected claims 1, 28 and 36 on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claim 1 of U.S. Pat. App. No. 10/676,922 (“*Lowell*”) in view of U.S. Pat. No. 4,843,541 (“*Bean*”); 4) rejected claims 13 and 56 on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claim 17 of *Lowell* in view of *Bean*; 5) rejected claims 1, 28 and 36 on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claim 1 of U.S. Pat. App. No. 10/676,557 (“*HP*”) in view of *Bean*; 6) rejected claims 13 and 56 on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claim 62 of *HP* in view of *Bean*; 7) rejected claims 13-19 and 56-62 under 35 U.S.C. § 102(b) as being allegedly anticipated by *Bean*; 8) rejected claims 1, 28 and 36 under 35 U.S.C. § 102(b) as allegedly being anticipated by “Virtualizing I/O Devices on VMware Workstation’s Hosted Virtual Machine Monitor,” Lim et al. 2001 (hereafter “*VMware*”); 9) rejected claims 1, 28 and 36 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Pat. No. 6,961,941 (“*Nelson*”); 10) rejected claims 1-2, 4-12, 25-50, 54-55 and 66-67 under 35 U.S.C. § 103(a) as being allegedly obvious over *Bean*; 11) rejected claims 20-22, 51-53 and 63-65 as being allegedly obvious over *Bean* in view of U.S. Pat. No. 6,256,657 (“*Chu*”); 12) rejected claims 23 and 24 as being allegedly obvious over *Bean* in view of U.S. Pat. No. 6,789,156 (“*Waldspurger*”); and 13) rejected claim 3 as being allegedly obvious over *Bean* in view of U.S. Pat. No. 6,296,847 (“*Bugnion*”).

With this Response, Applicant amends claims 1, 6, 13, 28, 36, 44, and 56. Based on the amendments and arguments contained herein, Applicant respectfully requests reconsideration and allowance of the pending claims.

**I. SECTION 101 REJECTION OF CLAIMS 28-43**

The Examiner alleges that the inventions of claims 28-43 “merely wait there to virtualize the memory while no actual memory is being virtualized since the applicant never claims that runtime actually starts.” Applicant amends claims 28 and 36 to clarify that virtualization actually commences during runtime of the operating system. Applicant believes these amendments fully address the Examiner’s concerns.

**II. REJECTIONS OF CLAIMS 1-12 AND 28-43 UNDER § 112,  
SECOND PARAGRAPH**

The Examiner expressed uncertainty as to when virtualization occurs. Applicant amends claims 1, 28, and 36 to clarify that virtualization occurs during run time of the operating system. Applicant believes these amendments fully address the Examiner’s concerns.

**III. DOUBLE PATENTING REJECTION**

The independent claims have been amended. The amendments may moot the double patenting rejections. If not, Applicant will address the double patenting rejection once all other issues have been resolved.

**IV. THE ART REJECTIONS**

The Examiner specifically interpreted “runtime” as runtime of the virtual machine monitor, Office Action p. 24, and the Examiner’s rejections are based on that interpretation. The Examiner reasoned that the virtual machine monitor must run before virtualization can happen and thus it would be “obvious that if the virtual machine monitor does not run, virtualization can not happen.” Id. Applicant amends claim 1 (and corresponding amendment to claim 6) to clarify that virtualization commences during runtime of the “operating system.” None of the cited art teaches commencing virtualization during runtime of the operating system. Because the Examiner’s rejections are based on a different understanding of what “runtime” means, Applicant respectfully asserts that claim 1 is allowable over the cited art.

Claim 1 has also been amended to require commencing memory virtualization “multiple times” during runtime of the operating system. None of the

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art teaches this limitation. This limitation is supported throughout the specification such as at para. 30 and Fig. 2.

The same or similar arguments apply to independent claims 28, 36, and their dependent claims as well.

Claim 13 requires devirtualizing memory at runtime of the operating system. Bean does not teach actually devirtualizing memory. Instead, in Bean guest operating system memory is always virtualized. See e.g., col. 30. Bean does not state or even suggest the act of devirtualizing memory. For at least this reason, claim 13 and its dependent claims are allowable

Claim 44 requires the commencement of memory virtualization when multiple operating system instances are running, as well as devirtualizing memory. Neither Bean nor any other art of record teaches commencing memory virtualization when operating systems are running, and Bean certainly does not teach devirtualizing memory as explained above.

Claim 56 requires devirtualizing computer memory at runtime of an operating system. Bean has no such teaching. In Bean, memory is always virtualized. For at least this reason, claim 56 and its dependent claims are allowable.

### **CONCLUSION**

In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicant respectfully requests reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of

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time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims and fees for any time extensions) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

/Jonathan M. Harris/

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